REMARKS

The following remarks are made in response to the Office Action mailed May 26, 2004. Claims 37-48 were rejected. With this Response, no claims have been amended. Claims 37-48 remain pending in the application and are presented for reconsideration and allowance.

Claim Rejections under 35 U.S.C. § 102

The Examiner rejected claims 37-46 under 35 U.S.C. § 102(b) as being anticipated by the McLaughlin et al. U.S. Patent No. 5,202,822. Applicant submits that the McLaughlin et al. Patent does not teach or suggest the invention of independent claim 37.

The McLaughlin et al. Patent discloses a controller of a control system, which operates as a master, has a slave input/output processor (IOP) connected thereto which communicates with at least one device of a predetermined type, and a backup slave IOP connected thereto of the same type as the slave IOP, the slave IOP operating as a primary IOP to the device. A method for providing backup to the slave IOP by the backup slave IOP comprises the steps of loading the backup slave IOP with the same database as the slave IOP. The backup slave IOP eavesdrops on all communications from the controller to the slave IOP. When a write command is communicated to the slave IOP, the backup slave IOP taps the data from the bus and updates the database. If the command is not a write command, it ignores the communication. (Abstract).

The McLaughlin et al. Patent includes a process control system 10 including a plant control network 11, in which a process controller 20 is operatively connected to the plant control network 11. The process controller 20 interfaces analog input and output signals, and digital input and output signals to process control system 10 from a variety of field devices that include valves, pressure switches, pressure gauges, thermocouples, etc. (Column 3, lines 22-38). The process controller 20 includes a controller A 30 and a controller B 40 which effectively operate as a primary and secondary controller. (Column 3, lines 60-64). A database maintained by the primary controller is communicated to the secondary controller via link 13. (Column 4, lines 30-32; Fig. 2). A track unit is coupled to local bus 93 of control unit 90 to implement the database transfer via link 13 to the other controller 30, 40 of the process controller 20. (Column 4, line 67 – column 5, line 3).

In the redundancy scheme of the McLaughlin et al. Patent, an analog output type I/O module 21 is duplicated. (Column 6, lines 29-31; Fig. 5). Synchronizing is a process whereby the same database is contained in both IOP(A) 21-A and IOP(B) 21-B. The information of the database of IOP(A) 21-A is requested by the controller 30 and then transferred to IOP(B) 21-B thereby causing the database of IOP(B) 21-B to be the same. (Column 8, lines 13-19).

Applicant submits that the McLaughlin et al. Patent does not teach or suggest the limitations of independent method claim 37 of synchronizing the memory device in the master control unit with the memory device in the slave control unit, the synchronizing including: generating, in the master control unit, values for the signal path associated with the master memory device to transfer data to the master memory device; transferring a subset of the generated signal paths to the signal path associated with the slave memory device; and allowing the generated signals to perform the data transfer to the master memory device and the slave memory device.

The Examiner states that

> in column 2, lines 14-21, the McLaughlin et al. Patent discloses that the slave IOP is operatively connected to the device and operates as a primary IOP to the device. A method for providing backup to the slave IOP by the backup slave IOP comprises the steps of loading the backup slave IOP with the same database as the slave IOP. The backup slave eavesdrops on all communications from the controller to the slave IOP.

This McLaughlin et al. Patent database copying reference, however, is referring to database copying between IOPs 21-A and 21-B, not controller A 30 and controller B 40. The Examiner also states that the memory devices recited in claim 37 (which are synchronized in the method) are located in controller A 30 and controller B 40, not in IOPs 21-A and 21-B. IOPs 21-A and 21-B, however, are not the same as the master control unit and the slave control unit recited in claim 37. Controller A 30 and controller B 40 communicate with each other over link 13 with a track unit. Therefore, this McLaughlin et al. Patent reference to database copying does not apply to the invention claimed in claim 37.

Even if the McLaughlin et al. Patent reference to database copying did apply, the method of transferring the data in the McLaughlin et al. Patent is different than the method recited in claim 37 of generating, in the master control unit, values for the signal path

associated with the master memory device to transfer data to the master memory device, transferring a subset of the generated signal paths to the signal paths associated with the slave memory device, and allowing the generated signals to perform the data transfer to the master memory device and the slave memory device. The McLaughlin et al. Patent does not teach or suggest these limitations of claim 37. In contrast, the McLaughlin et al. Patent requires controller 30 to transfer the database between IOP 21-B and IOP 21-A. (Column 8, lines 13-19).

In view of the above, the McLaughlin et al. Patent does not teach or suggest the method of independent claim 37. Dependent claims 38-46 further define patentably distinct independent claim 37. Accordingly, dependent claims 38-46 are also believed to be allowable.

Therefore, Applicant respectfully requests that the rejections to claims 37-46 under 35 U.S.C. § 102 be withdrawn and that claims 37-46 be allowed.

Claim Rejections under 35 U.S.C. § 103

The Examiner rejected claims 47 and 48 under 35 U.S.C. § 103(a) as being unpatentable over the McLaughlin et al. Patent as applied to claim 37, and further in view of the Kern et al. U.S. Patent No. 5,734,818.

Dependent claims 47 and 48 further define patentably distinct independent claim 37. Accordingly, dependent claims 47 and 48 are also believed to be allowable.

Therefore, Applicant respectfully requests that the rejections to claims 47 and 48 under 35 U.S.C. § 103 be withdrawn and that claims 47 and 48 be allowed.

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 37-48 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 37-48 is respectfully requested.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 08-2025.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Response should be directed to either David A. Plettner at Telephone No. (408) 447-3013, Facsimile No. (408) 447-0854 or Patrick G. Billig at Telephone No. (612) 573-2003, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 23 day of August, 2004.

By
Name: Patrick G. Billig